

ABSTRACT

Method of allocating a transmission power level to pilot symbols used for estimating the channel of a transmission system of the multicarrier type with spreading of the signal in the frequency domain by spreading sequences

The present invention concerns a method of determining the transmission power of pilot symbols transmitted by replacing useful signals in a transmission frame of a multicarrier transmission system with spreading of the signal in the frequency domain by spreading sequences.

The said method includes the following steps:

- a) determining a performance level to be achieved by the transmission,
- b) deducing, from the said performance level to be achieved, the signal to noise ratio level introduced by the channel,
- c) deducing according to the said signal to noise ratio level on the one hand the transmission power of the said pilot symbols for a single spreading code allocated and on the other hand the increase in power which it is necessary to give to the said pilot symbols for the following allocated spreading codes, and
- d) determining, at each of the predetermined times, according to the number of spreading codes used at this time, the transmission power of the said pilot symbols by means of the following equation:

$$Q = \alpha(K-1) + Q_0 ; K \geq 1, \alpha > 0 \text{ and } Q_0 > \alpha$$

Fig. 3